

REMARKS

Claims 1-38 have been amended and remain in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

Claims 1-32 were rejected under 35 U.S.C. 103(a) as being unpatentable over Shirasaki (USP 6,185,040) in view of Miron (USP 7,002,696). This rejection is respectfully traversed with respect to claims 1-32, as amended.

Claims 1-32, as amended, are directed to systems and methods comprising a number of elements in combination. For example, representative claim 1, as amended, is directed to a transmitting system comprising a combination of elements. The claimed combination includes a processor, an integration lens, an optical fiber, and a variable reflectivity surface. The variable reflectivity surface is configured to impart a desired amplitude profile onto the output taps.

For an application like Optical CDMA it is usually highly desirable that each tap have substantially equal output intensity. A combination that provides gradient reflectivity can achieve substantially equal output intensity at each tap while maintaining low insertion loss. Support for a combination including this feature may be found in the present application at, for example, paragraphs 0042, 0050, 0056, 0060 and 0062.

Neither Shirasaki nor Miron disclose or suggest a combination including the use of gradient reflectivity on the output surface to impart a desired amplitude profile onto the output taps. Both Shirasaki and Miron result in output taps which follow an exponential decay in intensity with tap number. There is no teaching or suggestion in Shirasaki or Miron that each tap should have substantially equal output intensity. There is no teaching or suggestion in Shirasaki or Miron of a combination that includes the use of gradient reflectivity on the output surface to impart a desired amplitude profile onto the output taps.

Claims 33-38 were rejected under 35 U.S.C. 103(a) As being unpatentable over Shirasaki in view of Miron and Ranalli (USP 6,285,500). This rejection is respectfully traversed with respect to claims 33-38, as amended.

The fundamental deficiencies of Miron and Shirasaki are not compensated by the additional reference of Ranalli. Neither Shirasaki nor Miron nor Ranalli disclose or suggest a combination including the use of gradient reflectivity on the output surface.

Moreover, the rejection is premised on an assertion that Ranalli "teaches that it is well known to introduce a second beam to an optical system and allow the taps to interfere with a first set of delayed taps (see Figure 5)." Applicants disagree with this assertion. Applicants respectfully submit that Ranalli fails to teach or suggest interference. The beams in Ranalli are NOT interfered. Instead, the beams are switched. The beams in Ranalli may occupy nearly the same position in space, but the beams are not interfered.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 509622000700.

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Respectfully submitted,

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